

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-020433**Date Inspected:** 09-Feb-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1630**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance Inspector (QAI) Bert Madison was present at Yerba Buena Island in California between the times noted above for observations relative to the work being performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below.

- 1). Deck Access Hole (DAH) Insert Weld at OBG 3W PP19.5 W2 (SMAW Exterior R-1 Repair)
- 2). Field Welding of Lifting Lug Hole (LLH) Inserts (SMAW)
- 3). Longitudinal Stiffener (ALS) Splice at OBG Field Splice 2W/3W (SMAW)
- 4). OBG Deck Access Hole (DAH) Transverse Stiffener Splice (SMAW R-1 Repair)
- 5). OBG Field Splice 8E/9E Weld ID: D1 & D2 (QA verification)
- 6). Lifting Lug Hole (LLH) Insert Welds (QA verification)
- 7). Deck Access Hole (DAH) Longitudinal Stiffeners (QA verification)
- 8). Deck Access Hole (DAH) Transverse Stiffener (QA verification)

- 1). Deck Access Hole (DAH) Insert Weld at OBG 3W PP19.5 W2 (SMAW Exterior R-1 Repair)

The QAI periodically observed AB/F approved welder Jin Pei Wang (ID 7299) performing R-1 repair welding per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position on the exterior of the DAH Insert Weld at OBG 3W PP19.5 W2. See photo below. QC Inspector Steve McConnell was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1001 Repair. Welding was in process and the QAI observed the work at this location appeared to be in general compliance with contract documents.

- 2). OBG Field Welding of Lifting Lug Hole (LLH) Inserts (SMAW)

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Exterior: OBG 4W PP27 W4 weld 2

The QAI periodically observed AB/F approved welder Mike Jimenez (ID 4671) performing fill and cover pass welding of OBG 4W PP27 W4 weld 2 per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position. See photo below. QC Inspector Steve McConnell was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1050A CU rev. 0. Welding was completed and the QAI observed that the work appeared to be in general compliance with contract documents.

Exterior: OBG 4W PP27 W4 weld 1

The QAI periodically observed AB/F approved welder Mike Jimenez (ID 4671) performing fit-up, tack welding and root, fill and cover pass welding of OBG 4W PP27 W4 weld 1 per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position. QC Inspector Steve McConnell was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1050A CU rev. 0. Welding was completed and the QAI observed that the work appeared to be in general compliance with contract documents.

Exterior: OBG 4W PP27 W4 weld 3

The QAI periodically observed AB/F approved welder Mike Jimenez (ID 4671) performing fit-up, tack welding and root and fill pass welding of OBG 4W PP27 W4 weld 3 per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position. QC Inspector Steve McConnell was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1050A CU rev. 0. Welding was in process and the QAI observed that the work appeared to be in general compliance with contract documents.

Exterior: OBG 4W PP27 W3 weld 3

The QAI periodically observed AB/F approved welder Darcel Jackson (ID 9967) performing fit-up, tack welding and root, fill and cover pass welding of OBG 4W PP27 W3 weld 3 per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position. QC Inspector Steve McConnell was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1050A CU rev. 0. Welding was completed and the QAI observed that the work appeared to be in general compliance with contract documents.

Exterior: OBG 4W PP27 W3 weld 4

The QAI periodically observed AB/F approved welder Darcel Jackson (ID 9967) performing fit-up, tack welding and root, fill and cover pass welding of OBG 4W PP27 W3 weld 4 per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position. QC Inspector Steve McConnell was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1050A CU rev. 0. Welding was completed and the QAI observed that the work appeared to be in general compliance with contract documents.

Exterior: OBG 4W PP27 W3 weld 2

The QAI periodically observed AB/F approved welder Darcel Jackson (ID 9967) performing fit-up, tack welding and root and fill pass welding of OBG 4W PP27 W3 weld 2 per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position. See photo below. QC Inspector Steve McConnell was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1050A CU rev. 0. Welding was in process and the QAI observed that the work appeared to be in general compliance with contract documents.

Interior: OBG 6E PP44 E3 welds 1 & 3

The QAI periodically observed AB/F approved welder Salvador Sandoval (ID 2202) performing back welding at

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OBG 6E PP44 E3 welds 1 & 3 per the Shielded Metal Arc Welding (SMAW) process in the 4G (overhead) position. QC Inspector Steve McConnell was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1110B rev. 1. Welding of welds 1 & 3 was completed and the QAI observed that the work at this location appeared to be in general compliance with contract documents.

3). Longitudinal Stiffener (ALS) Splice at OBG Field Splice 2W/3W (SMAW)  
ALS-2

The QAI periodically observed AB/F approved welder Xiao Jian Wan (ID 9677) at OBG Field Splice 2W/3W ALS-2 performing welding of fill and cover passes per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position. The welding at this location was first from the South face and when completed the QAI periodically observed back grinding and subsequent back welding of root and fill passes from the North face. QC Inspector Scott Alder was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1012-3. The QAI observed that the fill pass welding was in process and the work at this location appeared to be in general compliance with contract documents.

4). OBG Deck Access Hole (DAH) Transverse Stiffener Splice (SMAW R-1 Repair)  
2W PP13.5 W5 TS

The QAI periodically observed AB/F approved welder Hua Qiang Hwang (ID 2930) performing R-1 repair welding per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position on the West face of the OBG DAH Transverse Stiffener Splice at 2W PP13.5 W5. QC Inspector Scott Alder was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1000 Repair. The welding was in process and the QAI observed that the work at this location appeared to be in general compliance with contract documents.

5). OBG Field Splice 8E/9E Weld ID: D1 & D2 (QA verification)

The QAI performed verification Ultrasonic Testing (UT) of 15% of the lengths of OBG Field Splice 8E/9E Weld ID: D1 and D2. The OBG Field Splices verified by the QAI appeared to be in general compliance with contract documents. See Ultrasonic Testing Report Form TL-6027 generated by the QAI on this date.

6). Lifting Lug Hole (LLH) Insert Welds (QA verification)

The QAI performed verification Ultrasonic Testing (UT) of 25% of the lengths of Lifting Lug Hole (LLH) Insert Welds: 1 through 4 at OBG 5E-PP31-E3. The OBG welds verified by the QAI appeared to be in general compliance with contract documents. See Ultrasonic Testing Report Form TL-6027 generated by the QAI on this date.

7). Deck Access Hole (DAH) Longitudinal Stiffener Splices (QA verification)

The QAI performed verification Ultrasonic Testing (UT) of 100% of the lengths of the longitudinal stiffener splices LSE and LSW at the DAH at OBG 1W-PP10.5-W2. The OBG Field Splices verified by the QAI appeared to be in general compliance with contract documents. See Ultrasonic Testing Report Form TL-6027 generated by the QAI on this date.

8). Deck Access Hole (DAH) Transverse Stiffener (QA verification)

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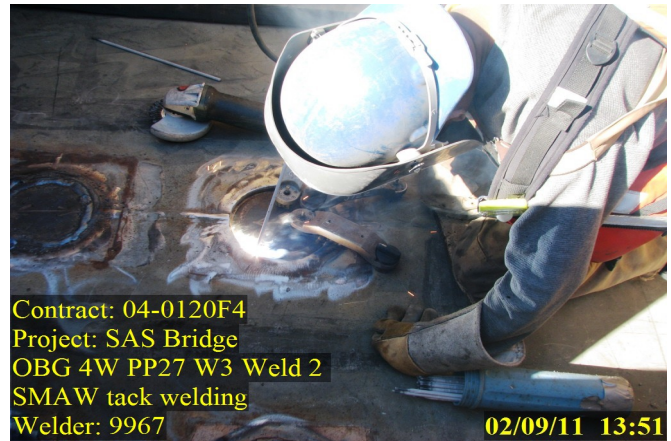
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The QAI performed verification Ultrasonic Testing (UT) of 100% of the length of the transverse stiffener splice TS at the DAH at OBG 3W-PP23.5-W2. The OBG Field Splice verified by the QAI appeared to be in general compliance with contract documents. See Ultrasonic Testing Report Form TL-6027 generated by the QAI on this date.

In addition to the photographs below QA documented most of the above noted observations in the form of digital photographs which are maintained by METS and are available upon request.



### Summary of Conversations:

Conversations on this date with Quality Control Inspectors were general in nature and pertained to locations of welding and QC activities and locations of welds released to the QAI for verification testing.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385 5910, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Madison,Bert	Quality Assurance Inspector
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<b>Reviewed By:</b>	Levell,Bill	QA Reviewer
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